

2085

Diag. Cht. No. 6002-1

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey *Hydrographic*
Field No. Office No. *2085*

LOCALITY,
State *Washington*
General locality *Grays*
Locality *Harbor*
1891

~~194~~

CHIEF OF PARTY

J. M. Delin

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DATE

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2085
1891

Report - 1892
Western Division
Coast of the State
of Washington

(42)
1891. Octo. 4-30

U. S. COAST AND GEODETIC SURVEY.

T. C. Mendenhall, Superintendent.

State: Washington.

DESCRIPTIVE REPORT.

Hydrographic Sheet No. 2085.

LOCALITY:

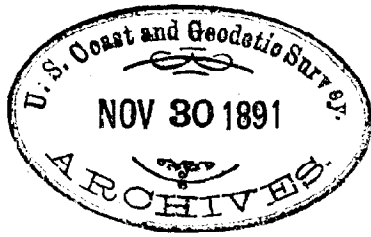
Gray's Harbor.

1891.

CHIEF OF PARTY:

St. J. M. Helm, U. S. N.

2085



Descriptive Report.

Section XI.

Hydrographic Sheet No. 1. Register No. 2085.

Gray's Harbor, Wash.

Coast Survey Steamer Gedney.

St. J. M. Haku, U.S.N., Comdg.

1891.

1.

The Sheet is Sheet 1, Gray's Harbor, Wash., an investigation of the Hoquiam Channel was also made on C.S.G. Survey Chart No. 643. Statistics are appended on Form 11, Statistics of Field Work. Attention is called to several points on the Sheet and Chart as follows:-

As to the location of the wharves at Peterson's Point, Ocotea and Gray's Harbor City, the two latter towns, and the village of Westport (the post office of which is Peterson) on Peterson's Point. Bay City no longer exists. All remains of the site of Fort Chehalis, the Astronomical Station, the houses, fences and sand dunes in this immediate vicinity have disappeared. The house used formerly as hydrographic signal "China" has been removed. The large stump, indicated by the topography of '86 and '87 on the beach of Pt. Brown has disappeared.

That the 12 ft. curve drawn entirely around the harbor entrance on old C.S.G. Survey Chart No. 643 was thought by interested parties to do the place an injustice. The Channel, though narrow, will, I think, show 15 ft. water.

2.

The locality of the Survey was Gray's Harbor Bar, coast of Washington, to the westward of a line joining Pt.

Brown and Pt. Chehalis. I appended a list of vessels crossing in and out of the harbor during the stay of the *Admiral*, it is probably a fair average.

3.

The coast as it appears from seawards is low, with woods back of wide sand beach. Point Brown and Chehalis are bars.

In approaching from seawards in winter time allowance must be made for a strong set to the S.W. In thick weather the whistling buoy, about $1\frac{1}{4}$ miles from the bar, will probably be the first object made. An intelligent use of the chart and lead in this vicinity are absolutely necessary.

A lone tree on Pt. Brown, indicated on the chart, is one of the oldest and best landmarks. There are ranges known to the pilots, but often changed; strangers must depend on the buoys. There is no light-house.

11.

There is but one channel across the bar. This has a depth of 15 ft. at the average lower low water, and 24 ft. at the average high water at this time, Oct. 1891, possibly more in winter and spring. The dangers near the channel are the North and South Spits indicated on the chart. The South spit is known locally as "Trustee Spit".

The captain of the tug "Traveler" does the towing and

3

piloting: His headquarters are at Hogue's, but will usually be found in the neighborhood of Peterson's Point and will go to a vessel making signal. The channel across bar is comparatively straight and is buoyed, in ordinary weather and with light draft vessels a pilot is unnecessary. If weather is thick or there is any doubt about the conditions of the bar a stranger should take a pilot. Inside the channel to Hogue's and the Chehalis River is marked by beacons and piles driven by the N.W. Lumber Co., and until these are located on the chart they will have to be pointed out to a stranger.

5.

The channel is subject to changes. Channel does cross shifting bar. The bottom is hard sand. The best and usual anchorages near the bar are to be found in channel about Peterson's Point wharf and in Hogue's channel about Gray's Harbor City wharf. I did not observe any harbor improvements in progress, the snagging of the Chehalis River, bar improvements and a light-house are spoken of.

6.

We had no time to make observations of tidal currents. Generally speaking the current is strong at spring and

Wax at neap tides, and the direction with the Channel.

7.

South or Trustees Spit has gradually grown towards the N.E.; the north spit is full of lumps, these are probably changing all the time. The channel seems to be nearly as in 1883, Chart 643.

8.

There is said to be some ice in the river during winter, fogs in summer and early fall. Freshets occur in winter when a large body of water is said to be carried down by the river, freshening the water well down the bay.

9.

Prevailing winds from S.W. in summer and from S.E. in winter, heaviest gales from S.E. and S.W.

The anchorages are secure.

10.

There is no life saving station nearer than Willapa Bay. There is a hospital available for seamen at Astoria, one in course of construction near Aberdeen was pointed out. Wrecks are said to hold out well sometimes along this coast, but the "Strathblane" wrecked between the Columbia River and Willapa Bay Nov. 1891, soon went to pieces and six lives were lost,

notwithstanding the efforts of the life saving crew from
Ilwaco

11.

There is a deputy collector with headquarters at Aberdeen,
and the usual custom house regulations exist.

12.

Fresh water is obtained from the sawmills, ship chand-
lers stores to a limited extent can be had in Hoguevain
and Aberdeen, provisions of all kinds are plentiful.

There are no coaling stations for ships. There is a machine
shop and foundry at Aberdeen and limited repairs might
be made at the shops of the various sawmills.

Large sailing vessels are constantly being built at Ho-
guevain and Aberdeen.

13.

There are wharves at Peterson's Point, Laidlaw's mill, Ocota,
Gray's Harbor City, Hoguevain, Aberdeen &c., depths alongside
unknown (not within limits of our work.)

14.

No weather service, no time ball.

15.

No branch hydrographic office, no station for reporting
vessels, no special signals and no ice code.

16.

No docks or marine railways.

17.

There is a passenger steamer running between points on the harbor and San Francisco and another between the harbor and Portland. There are daily mails to all points on the harbor from North and South. A steamer connects with the stage from Id., at Peterson's Point, makes round trip of the harbor as far as Hoquiam and thence a second steamer takes mails &c., as far as Montesano, connecting at latter place with train for Tacoma. There is a telegraph office at Aberdeen and there is telephonic connection with Hoquiam.

18

See under 11.

19.

The settlements in the vicinity of the work included the cities and towns of Aberdeen, Hoquiam, Ocosta, Gray's Harbor City, Cosmopolis, Montesano, Laidlaw's mill and a small village, Westport, on Peterson's Point where there is a hotel and post-office called Peterson. Aberdeen is the largest of these places and is situated three or four miles above Hoquiam on the Chehalis River, Hoquiam is next.

11 | 12 | 92

7

There are said to be seven saw mills in the harbor actively engaged in the export trade. Communications between these various towns are sustained by steamer.

During our stay in the harbor we spent all the time possible on the bar. On rainy and bad days we ran lines half a mile apart across the main channel as far up as Hoquiam. While these latter soundings are correct their location is not reliable, above Gray's Harbor City wharf no objects could be obtained to angle on which would plot the position at all.

However it seems that the channel is somewhat different from old chart, changes have undoubtedly taken place in the neighborhood of Whitcomb Flats and the Ocota channel. Our Chart No. 643 shows soundings only a little above Hoquiam, while the passage of an ocean vessel to and from points above is of almost daily occurrence. The above facts would seem to me to warrant a survey.

Mayor Arnold of Hoquiam, Mr Geo. H. Emerson, Genl. Manager of the Hoquiam Mills, and Capt. Lawson, of the tug "Traveler" of Hoquiam, did everything in their power to facilitate our work. I should like blue prints on charts sent them when ready for distribution.

Very respectfully
J. W. Nelson

Stair. Gedney.

Statistics of Field Work executed by *Lieut. J. M. Helms, U.S.N.*

Date of beginning field work *Gray's Harbor, Oct. 4, 1891*

Date of closing field work *Gray's Harbor, Oct. 30, 1891*

RECONNAISSANCE:

Area of, in square statute miles

Lines of intervisibility determined as per sketch submitted

Number of points selected for scheme

BASE LINES:

Primary, length of

Secondary, length of

Beach measurements, length of

Number of days employed in measurements of base

Number of days employed in re-measurements

TRIANGULATION:

Area of, in square statute miles

Signal poles erected, number of

Observing tripods and scaffolds built, number of

Observing tripods and scaffolds built, heights of

Days occupied in opening and verifying lines of sight, number of

Stations occupied for horizontal measures, number of

Stations occupied for vertical measures, number of

Geographical positions determined, number of

Elevations determined trigonometrically, number of

GEODESIC LEVELING:

Elevations determined by spirit-leveling of precision, number of

Lines of geodesic leveling, length of

LATITUDE, LONGITUDE, AND AZIMUTH WORK:

Latitude stations occupied, number of

Pairs of stars observed for latitude, number of

Average number of observations on a pair

Longitude stations, telegraphic, number of

Longitude stations, telegraphic, number of nights on which signals were exchanged

Longitude stations, chronometric, etc., number of

Azimuth stations, number of

Number of nights of observations for azimuth

Number of stars observed for azimuth

GRAVITY DETERMINATIONS:

Number of pendulum stations occupied.....

MAGNETIC WORK:

Stations occupied for observations of the magnetic declination, number of.....

Stations occupied for observations of the magnetic dip, number of.....

Stations occupied for observations of the magnetic intensity, number of.....

TOPOGRAPHY:

Area surveyed in square statute miles.....

Length of general coast-line in statute miles.....

Length of shore-line of rivers in statute miles.....

Length of shore-line of creeks in statute miles.....

Length of shore-line of ponds in statute miles.....

Length of roads in statute miles.....

Topographic sheets finished, number of.....

Topographic sheets, scales of.....

Topographic sheets, limits and localities of:

HYDROGRAPHY:

Area sounded in square geographical miles.....

Number of miles (geographical) run while sounding.....

Number of angles measured.....

Number of soundings.....

Number of tidal stations established.....

Number of specimens of bottom preserved.....

Current stations, number of.....

Hydrographic sheets finished, number of.....

Hydrographic sheets, scales of.....

Hydrographic sheets, limits and localities of:

Area sounded in square geographical miles.....	15 ³ / ₄
Number of miles (geographical) run while sounding.....	101.25
Number of angles measured.....	848
Number of soundings.....	4485
Number of tidal stations established.....	1
Number of specimens of bottom preserved.....	0
Current stations, number of.....	0
Hydrographic sheets finished, number of.....	1
Hydrographic sheets, scales of.....	1-20000

Sheet 1, Gray's Harbor Bar. Also an investigation of Hogman's channel on Chart No. 6113.

Sheet No. 1

No. days on working grounds	27
No. days hydrographic work done	12
No. days prevented by bad weather or other causes	9
No. Sundays	4
No. days engaged in signal building	2
No. signals built	8
No. signals occupied	11

Vessel	Number of					
	Sdg. Books	Angle Books	Tide Books	Fair Journal Sdgs.	Fair Angle Books	Fair Tide Books
Gedney	2			1		
St. Launch	2			2		
Total	4	1	1	3	1	1

Tide Stations:- One, at Pelissier's Point wharf.

No. Officers attached to Party:- 3, No. men:- 28

<u>Records.</u>	<u>Leadsmen.</u>	<u>Tide Observers.</u>
P.N. Christiansen, (S.M.)	E. Meyer, (M at A.)	H. Dietrich, (Q.M.)
A.E. Brusman, (Q.M.)	H. Dietrich, (Q.M.)	Alex. Flood, (Sec.)
	Thos. P. Helgans, (B.M.)	

Day Letters of Ship and boats:-

Gedney, Capital Letters, red.
 St. Launch, Small Letters, blue.

Sheet No. 1

Gray's Harbor, Wash.

Scale 1-20000

Requies Oct. 4, 1891

Area

Lt. J. M. Hilde, U.S.A.

Resided Oct. 30, 1891

15 ³/₄ Sq. mi.

In chg. of Party

Date	Vessel	Letter	Book	Number of			Observations
				Miles	Soundings	Angles	
Oct. 9	Gedney	A	1	12.50	614	116	Lt. J. M. Hilde
Oct. 19	"	B	1	9.50	545	60	Ens. A. N. Mayer
Oct. 20	"	C	1 & 2	20.25	1049	148	Ens. J. M. Poyer Pay Sec. W. W. Joyner.
Totals			2	42.25	2208	324	

Date	Vessel	Letter	Book	Number of			Observations
				Miles	Soundings	Angles	
Oct. 9	Launch	a	1	2.00	90	26	Ens. A. N. Mayer
Oct. 12	"	b	1	16.75	596	125	Ens. J. M. Poyer
Oct. 13	"	c	1	10.25	331	77	Pay Sec. W. W. Joyner
Oct. 15	"	d	1	5.50	252	68	
Oct. 16	"	e	1	3.00	259	14	
Oct. 19	"	f	1	.25	29	8	
Oct. 20	"	g	1	4.25	162	22	
Oct. 21	"	h	2	17.00	538	184	
Totals			2	59.00	2277	524	

Recapitulation

Vessel	Days	Number of		
		Miles	Soundings	Angles
Gedney	3	42.25	2208	324
St. Launch	8	59.00	2277	524
Totals		101.25	4485	848

Hoquiam, Wash., Oct., 26., 1891.

Statement of Vessels Arriving and departing at Grays Harbor
during the time the Str. "Gedney" was in the Harbor.

Oct. 4"	Sailed Str. Point Loma	
	" Bark. Chehalis	850 M.Ft.
	" Schr. John Mc Collough	100 M&Mdse
	Arrived " Volunteer	
	" American Girl	
Oct. 10"	" Twilight	
11"	" Melancthon	
	" Catherine Sudden	
	" H. C. Wright	
	" Falcon	
Oct. 12"	" Str. Willapa	Freight.
13.	" Eureka	
14"	Sailed Willapa	
15"	Arrived Mary & Ida	
	" Str. Point Loma	Freight
16"	" Chas Hanson	
	" Dora Bloom	
17"	" " Alliance	Freight
	Sailed Volunteer	850 M.
18"	" American Girl American Girl	320 M.
19	" Point Loma	Lumber & Mdse.
20"	" Twilight	240 M.
21 2	" Alliance	
23"	Arrived Norway	
	" Roy Summers	

Vessel Report Continued.

Oct. 24"	Arrived	Novelty	
	"	Webfoot	
25"	Sailed	Chas Hanson	230 M.

We have now in the Harbor 12 Vessels ready for sea representing 5 Million Feet of Lumber And 2 Vessels in the Offing

Capt. Lawson
Master Tug Traveler
